Nosocomial Outbreak of Scabies Clinically Resistant to Lindane

To the Editor:

Scabies is a cutaneous parasitosis transmitted mainly by skin contact. Delayed diagnosis because of atypical presentation facilitates dissemination. Crusted (Norwegian) scabies particularly is likely to lead to epidemics, because patients are infested by thousands of mites and thus are extremely contagious.

Several nosocomial scabies outbreaks with secondary cases among the relatives of patients and staff have been noted in recent years.^{1,2} Here we report such an outbreak that was very difficult to eradicate due to clinical resistance to 1% lindane, which had been our standard treatment for scabies.

In late November 1994, a patient with acquired immunodeficiency syndrome and psoriatic ervthroderma with severe itching was admitted to our infectious disease unit and received topical treatment, involving frequent manipulation of the lesions and changes of dressings. When symptoms persisted, crusted scabies was suspected, proven by skin biopsy on December 14, and treated with lindane. In the following 19 weeks, six cases of scabies were diagnosed among healthcare workers, five among their family members, and five among patients with no prior contact with the index patient. Lindane treatment and prophylaxis showed no effect. An intervention program was designed by our Preventive Medicine Department and was implemented in the 20th week of 1995. All of our facilities and the fomites (including beds and wheelchairs) were cleaned intensely and fumigated, 5% permethrin was used prophylactically on every patient in the ward, all the staff, and the families of both the staff and the patients. The same day, we instituted a nurse protocol directed to pruritus. Every patient admitted to our unit was questioned systematically about itching. If pruritus was detected and it affected other relatives, appeared mainly at night, or was located in areas suggesting scabies, the patient was placed in cutaneous isolation, treated with an emulsion of 5% permethrin, and kept in cutaneous isolation until scabies had been definitely excluded. From that intervention on, no more cases of scabies were diagnosed either in the staff or in their families, and no further nosocomial transmission of scabies was observed.

Control of a scabies outbreak requires good disinfestation of fomites. paying special attention to beds and wheelchairs, and simultaneous treatment of all potentially affected individuals (patients and staff) in the facility and their families.³ This may require treatment of over 500 people and expenditure of more than \$20,000. Good coordination is essential. It is imperative that treatment be given to the entire group. The medications have to be distributed and all participants given careful directions regarding the importance of following the instructions completely.

Factors contributing to the persistence of epidemics include patients with unrecognized infestations because of atypical or minimally symptomatic lesions, patients with crusted (Norwegian) scabies, carriage of scabies mites by infested staff members before they have symptoms, treatment failure due to improper use of scabicides or bad compliance, and lindane failure.⁴

When an epidemic proves difficult to control and scabies persists as a chronic problem over a period of months or even years, this often leads to staff demoralization. Frustration and anger are common among staff, patients, and families. An accurate information policy is very useful in allaying fears and achieving the cooperation needed to resolve the outbreak.

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Does a Cheaper Mask Save Money? The Cost of Implementing a Respiratory Personal Protective Equipment Program

To the Editor:

In a recent article, Rivera et al¹ stated that cheaper, less durable respirators, ie, N-95 respirators, may result in a more expensive personal protective program (PPP). At our institution, we have adopted the use of N-95 respirators since 1996 and have experienced a cheaper, yet safe, effective, and user-friendly way to provide a PPP.

We used high-efficiency particulate air (HEPA) respirators from 1993 to 1995. HEPA respirators were found to be bulky and uncomfortable. They interfered with patient communication and may cause breathing difficulties for some healthcare workers (HCWs).² In addition, they may interfere with the field of vision, placing HCWs at risk for needlestick injury.³ HCWs may attempt to adjust the HEPA respira-